

**PRE-CAP MONITORING REPORT**  
**YARBORO PROPERTY**  
**2205 OAK HILL DRIVE**  
**GREENSBORO, NORTH CAROLINA**

**APRIL 2, 1997**

**LEGACY ENVIRONMENTAL SERVICES, INC.**





# LEGACY ENVIRONMENTAL SERVICES, INC.

P.O. Box 4560, Greensboro, NC 27404-4560, Phone (910) 316-0452, FAX (910) 299-1961

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April 2, 1997

Melvin Yarboro  
1072 Tarry Road  
Star, North Carolina 27356

Reference: Pre-CAP Monitoring Report  
Yarboro Property  
2205 Oak Hill Drive  
Greensboro, North Carolina  
Groundwater Incident Number 10017

Dear Mr. Yarboro,

Please find enclosed a report summarizing the sampling and analyses of all monitoring wells located at the above referenced facility. These activities were conducted in order to obtain time based data concerning petroleum constituents in the groundwater. This report contains the results from laboratory analyses of groundwater samples collected from six monitoring wells previously installed at this facility.

Mr. Yarboro, if you have any questions concerning this report, please contact our office.

Sincerely,

Brandon Moore, Staff Geologist

Henry Nemargut, P.E.  
Legacy Environmental Services, Inc.

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**PRE-CAP MONITORING REPORT  
NCDEHNR INCIDENT NUMBER 10017**

**Yarboro Property  
2205 Oak Hill Drive  
Greensboro, North Carolina**

**1.0 Background**

**1.1 Introduction**

Melvin Yarboro owns a property located at 2205 Oak Hill Drive in Greensboro, North Carolina. This facility contains one permanent structure used for residence. The site previously contained one 550 gallon heating oil Underground Storage Tank (UST). Figure 1 illustrates the location of this facility on the Greensboro Quadrangle U.S.G.S. Topo Map. The UST was removed from the site on February 24, 1993. Following tank removal and site assessment, soil and groundwater contamination were found to exist at this facility. Legacy's Comprehensive Site Assessment (CSA) for this site was submitted to the NCDENR on March 10, 1995. Figure 2 illustrates the layout of this site, the former UST location, and the monitor well locations. This report contains findings reached following re-sampling of all existing wells. This sampling event was conducted to determine the effect of time on the contaminant plume located at 2205 Oak Hill Drive.

**1.2 Scope of Services**

Legacy has been contracted by Melvin Yarboro to conduct monitoring, sampling, and reporting for this facility. This report contains a summary of the following activities conducted during February of 1997:

- o A comprehensive monitor well sampling event conducted by Legacy on February 24, 1997.
- o A dissolved oxygen (DO) survey conducted at the project site by Legacy.
- o Results from laboratory analyses of groundwater samples conducted by Froehling and Robertson, Inc. in Richmond, VA.
- o The approximate groundwater flow direction and hydraulic gradient at the site calculated by Legacy.
- o Isoconcentration maps illustrating the current contaminant levels in the monitoring wells at the site prepared by Legacy.

**2.0 Field Activities**

**2.1 Ground Water Flow Direction and Gradient**

In order to estimate the groundwater flow direction in the vicinity of the petroleum release, elevations of the monitor well casings were measured using surveying equipment. Static water levels were then obtained from each of the wells and the data was used to compute a potentiometric surface map which is included as Figure 3.

Groundwater data and monitoring well information, which are summarized in Table 1, were also used to estimate the hydraulic gradient at the project site. Using the horizontal distance between the monitor wells and the static water levels, the groundwater was estimated to be flowing in an eastern direction with a hydraulic gradient of approximately 0.056 ft/ft.

## 2.2 Dissolved Oxygen Survey

To help determine if natural biodegradation is occurring at the project site, the shallow monitor wells in the vicinity of the petroleum release were surveyed for dissolved oxygen (DO) levels. The results of the survey are depicted graphically on the Figure 4 dissolved oxygen distribution map. The results indicate reduced DO levels in the two impacted wells (MW-1 and MW-5), with significant amounts of dissolved oxygen noted in the surrounding wells. The map appears to indicate that natural biodegradation is occurring at the project site.

## 2.3 Monitor Well Sampling and Analyses

On February 24, 1997 all on-site monitor wells were sampled for analyses utilizing EPA Methods 602 + Xylenes, 625 + 10 largest peaks, and Method 3030C for lead. Before sampling, the monitor wells were purged by removing a minimum of three well volumes to ensure that the samples were representative of the actual groundwater conditions. The wells were developed using disposable plastic balers suspended with unused nylon string. Following development of the groundwater monitoring wells, samples were obtained from the disposable balers.

All samples were placed in laboratory supplied glassware, labeled with sample location, analysis to be performed, time, date and sampler's name. The sample jars were then immediately placed in a cooler, chilled with ice to approximately 4°C in preparation of transportation to an analytical laboratory utilizing EPA approved chain-of-custody procedures.

Results from the analytical laboratory indicated the presence of one petroleum compound in the groundwater samples above current listed 2L Standards. Benzene, Toluene, Ethylbenzene, and total Xylenes were below their respective 2L Standards in all six monitor wells. 2-Ethylhexyl Phthalate was detected in MW-5 at a level of 24.1 ppb, which is above the 2L Standard of 3 ppb. Naphthalene was detected in MW-1 and MW-5, and Di-n-Octylphthalate was reported in MW-5. The levels detected for these two compounds were below the current 2L Standards. Several Dichlorobenzene compounds were reported in MW-1 and MW-5; however, no 2L Standard has been established for these compounds. No other compounds were detected above laboratory detection limits in any of the monitor wells.

Ten tentatively identified compounds (TICs) were detected in MW-1 with a total concentration of 218.3 ppb, and MW-5 showed a TIC total concentration of 121.82 ppb. No TICs were reported in any of the other four monitor wells at the site. TICs currently do not have a 2L Standard.

The extent of dissolved petroleum constituents in the groundwater are illustrated on Figures 5 and 6. A 2-Ethylhexyl Phthalate isoconcentration map is included as Figure 5, and Figure 6 contains a total TICs isoconcentration map. Table 2 summarizes the analytical results for the groundwater samples collected on February 24, 1997. A copy of the analytical reports and the chain of custody records for the groundwater samples are contained in Appendix A.

## **2.4 Plume Development**

Total BTEX concentrations have shown no change in concentration since the May, 1996 sampling event. BTEX levels were below 2L standards for all wells during both sampling events. However, Tentatively Identified Compounds have increased in concentration in MW-5 since the previous sampling event. During the May, 1996 sampling event MW-1 was the only well showing a detectable TICs concentration, but during the sampling event on February 24, 1997, TICs were detected in MW-5 at a total concentration of 121.82 ppb. 2-Ethylhexyl Phthalate was also detected in MW-5 on February 24, 1997; this compound was not previously detected at the site. Table 3 contains the time based analytical results for Total TICs, and Figure 7 illustrates the same information graphically. The figure and graph referenced above indicate that the contaminant plume at 2205 Oak Hill Drive is migrating down-gradient toward MW-5.

## **3.0 Conclusions, Recommendations, and Limitations**

### **3.1 Conclusions**

From a review of all information gathered during Pre-CAP monitoring activities, the following conclusions are noted by Legacy:

- 2-Ethylhexyl Phthalate was detected above its 2L Standard in the groundwater samples at the project site. Total TICs and Dichlorobenzene were detected in MW-1 and MW-5; these compounds currently do not have 2L Standards.
- A DO survey conducted at the site revealed decreased DO levels in impacted wells and significant DO levels in surrounding wells, indicating that natural biodegradation is occurring at the project site.
- The contaminant plume at 2205 Oak Hill Drive is migrating down-gradient over time. The TICs concentration in MW-5 (located 12' down-gradient from the source) increased between the 1996 sampling event and the February 24, 1997 sampling event.

### 3.2 Recommendations

Legacy recommends implementation of a Corrective Action Plan which is currently being prepared by Legacy Environmental Services for 2205 Oak Hill Drive. A copy of this monitoring report should be forwarded to the following address:

Guilford County Department of Public Health (GCDPH)  
301 N. Eugene Street  
Greensboro, North Carolina 27401

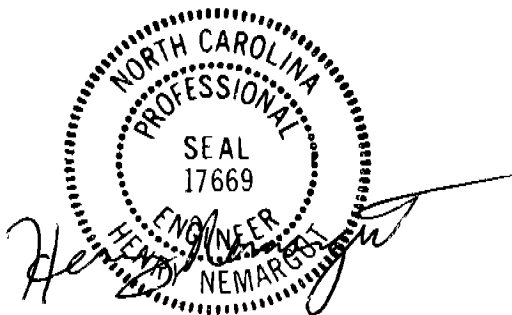
### 3.3 Limitations

This report has been prepared for the exclusive use of Melvin Yarboro for the specific application to the referenced site located in Guilford County, North Carolina. The assessment was conducted based on the scope of work and level of effort desired by the client. Our findings have been developed in accordance with generally accepted standards in the practice of Pre-CAP Monitoring in the State of North Carolina, available information and our professional judgement. No other warranty is expressed or implied.

The data presented in this report are indicative of conditions that existed at the precise locations sampled and at the time the samples were collected. Additionally, the data obtained from the samples would be interpreted as meaningful with respect to the parameters indicated in the laboratory reports. No additional information can be logically inferred from this data.

### 4.0 **Professional Certification**

The Pre-CAP Monitoring Report for this site has been prepared by Legacy Environmental Services, Inc. under the direct supervision of licensed engineers or geologists. Technical review of this document has been provided by Henry Nemargut Engineering Services. All engineering work performed on this project was conducted under my direct supervision:



Henry Nemargut, P.E.  
Henry Nemargut Engineering Services  
North Carolina License #17669

## FIGURES





FIGURE 1

LEGACY ENVIRONMENTAL SERVICES, INC. GREENSBORO, NORTH CAROLINA	
MELVIN YARBOROUGH GREENSBORO, NC	
CLIENT:	
PROJECT: PRE-CAP MONITORING 2205 OAK HILL DRIVE GREENSBORO, N.C.	
TITLE: PROJECT LOCATION U.S.G.S. TOPO MAP GREENSBORO QUADRANGLE	
SCALE: 1:24000	DATE: 6/14/96
DWN.BY: KBM	DWG. L 96-155Z

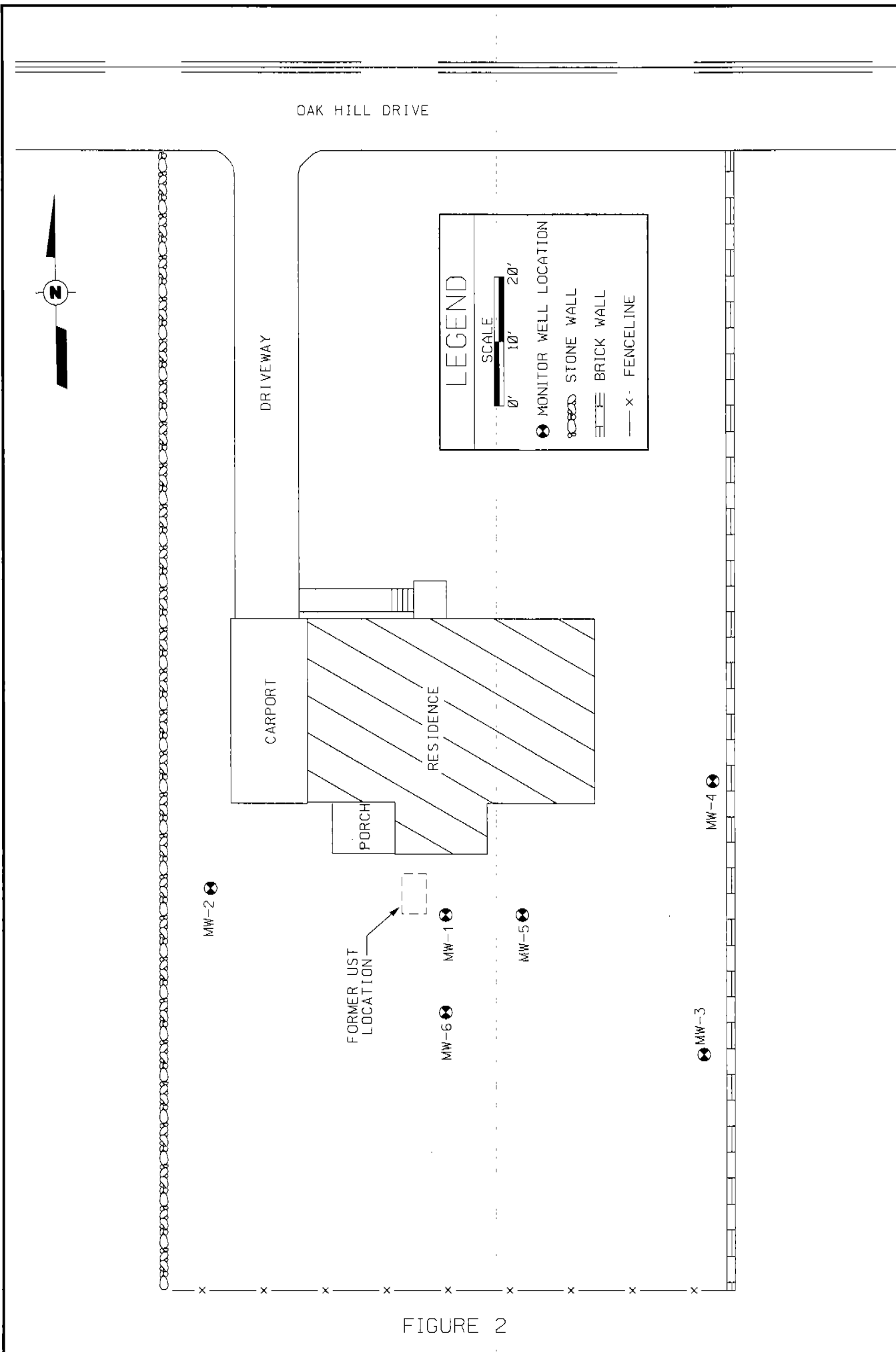


FIGURE 2

SCALE: 1"=20'	TITLE: SITE LAYOUT AND MONITOR WELL LOCATIONS	PROJECT: PRE-CAP MONITORING 2205 OAK HILL DRIVE GREENSBORO, N.C.	CLIENT: MELVIN YARBOROUGH GREENSBORO, NC	LEGACY ENVIRONMENTAL SERVICES, INC. GREENSBORO, NORTH CAROLINA
DATE: 3/12/97				
DWN.BY: KBM				
DWG.# L97-131				

SCALE: 1"=20'

DATE: 3/12/97

DWN.BY: KBM

DWG.# L97-131A

TITLE:

POTENTIOMETRIC SURFACE MAP

(AS MEASURED ON 2/24/97)

PROJECT:

PRE-CAP MONITORING

2205 OAK HILL DRIVE

GREENSBORO, N.C.

CLIENT:

MELVIN YARBOROUGH

GREENSBORO, NC

LEGACY

ENVIRONMENTAL

SERVICES, INC.

GREENSBORO, NORTH CAROLINA

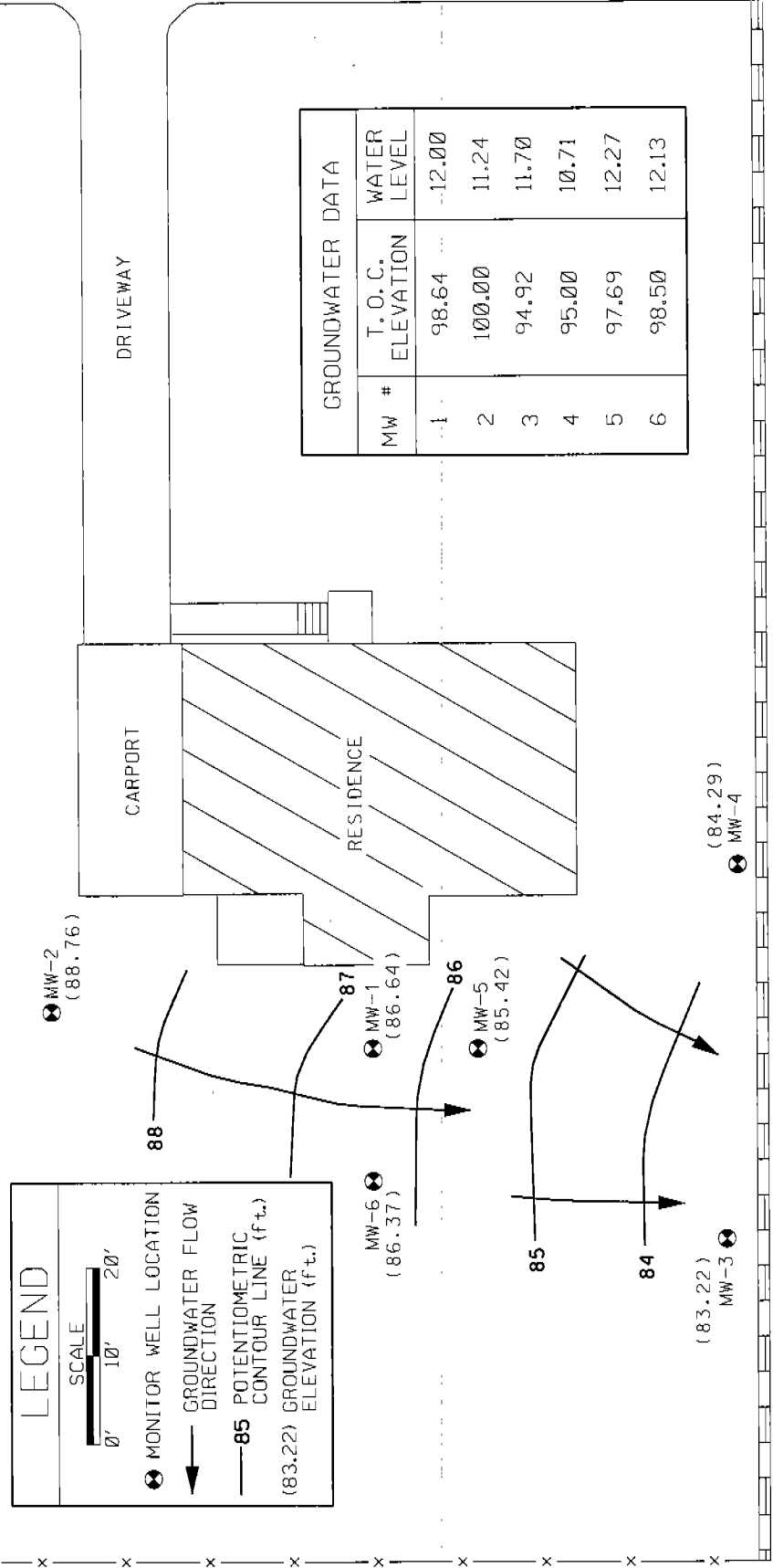


FIGURE 3

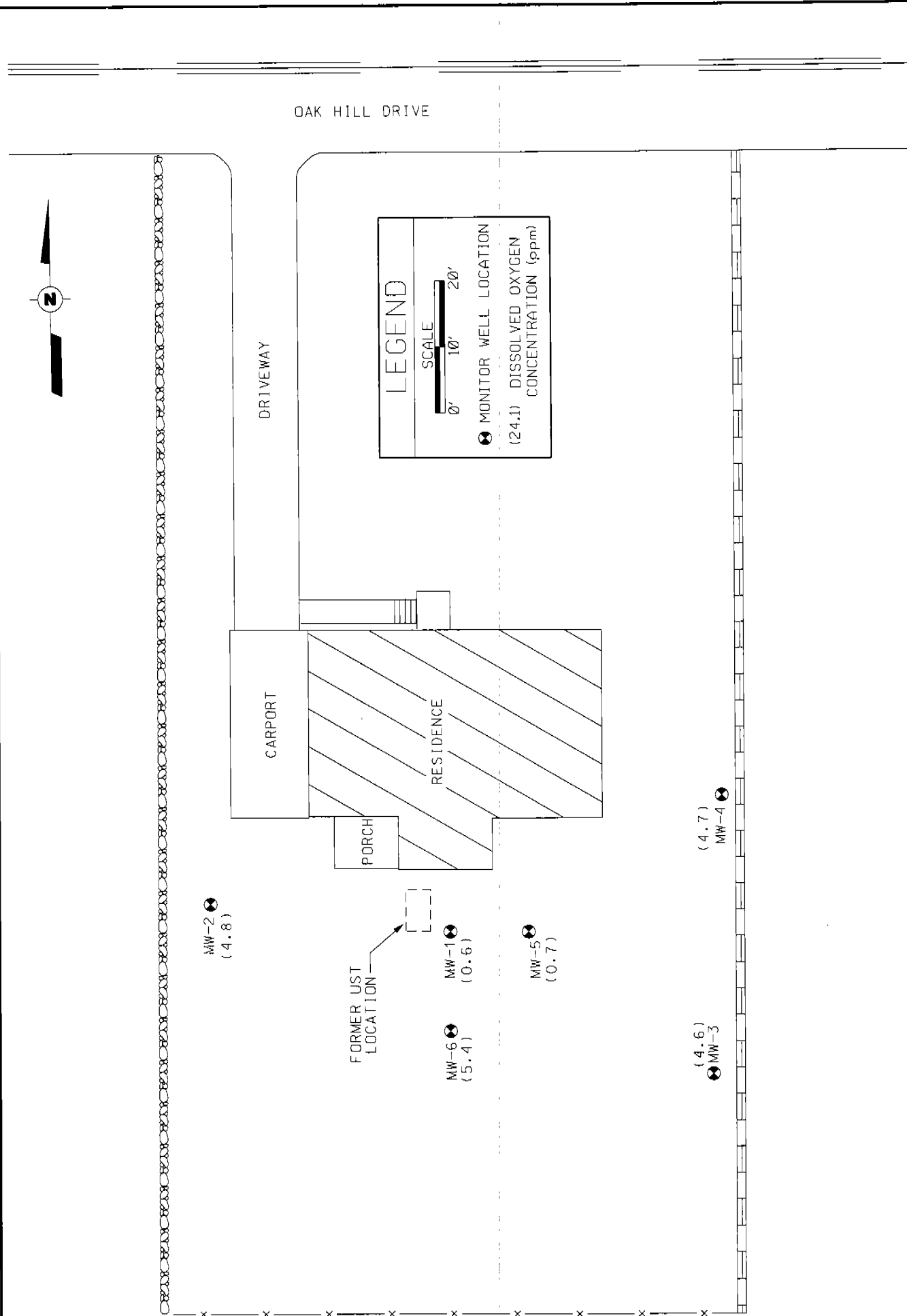


FIGURE 4

SCALE: 1"=20'  
 DATE: 3/12/97  
 DRAWN BY: KBM  
 DWG.#: 1-97-131D

TITLE:  
 DISSOLVED OXYGEN  
 CONCENTRATION MAP

PROJECT: PRE-CAP MONITORING  
 2205 OAK HILL DRIVE  
 GREENSBORO, N.C.

CLIENT: MELVIN YARBOROUGH  
 GREENSBORO, NC

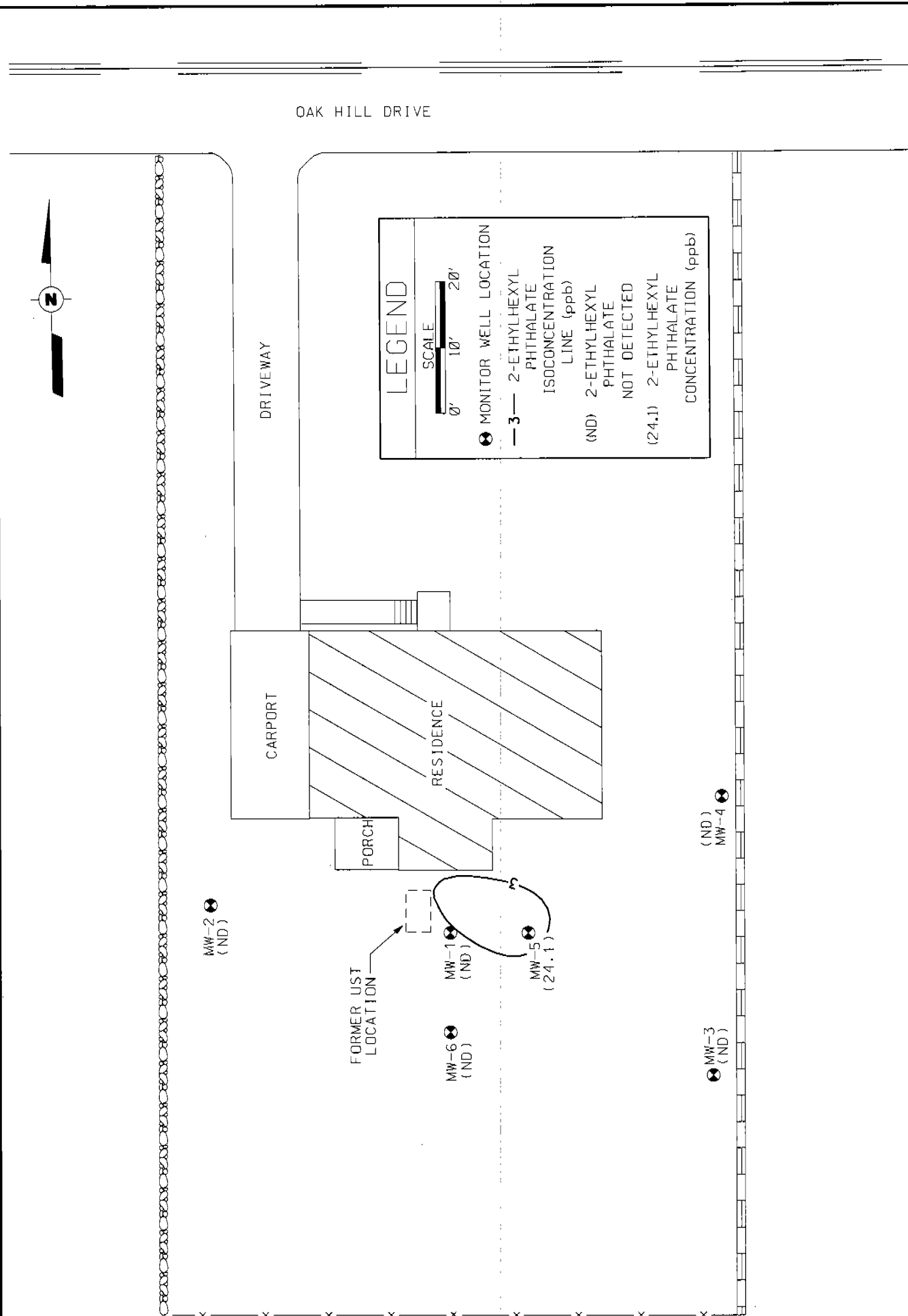


FIGURE 5

SCALE: 1"=20'	TITLE: 2-ETHYLHEXYL PHTHALATE ISOCONCENTRATION MAP	PROJECT: PRE-CAP MONITORING 2205 OAK HILL DRIVE GREENSBORO, N.C.	CLIENT: MELVIN YARBOROUGH GREENSBORO, NC	LEGACY ENVIRONMENTAL SERVICES, INC. GREENSBORO, NORTH CAROLINA
DATE: 3/13/97				
DWN.BY: KBM				
DWG. # L97-131B				

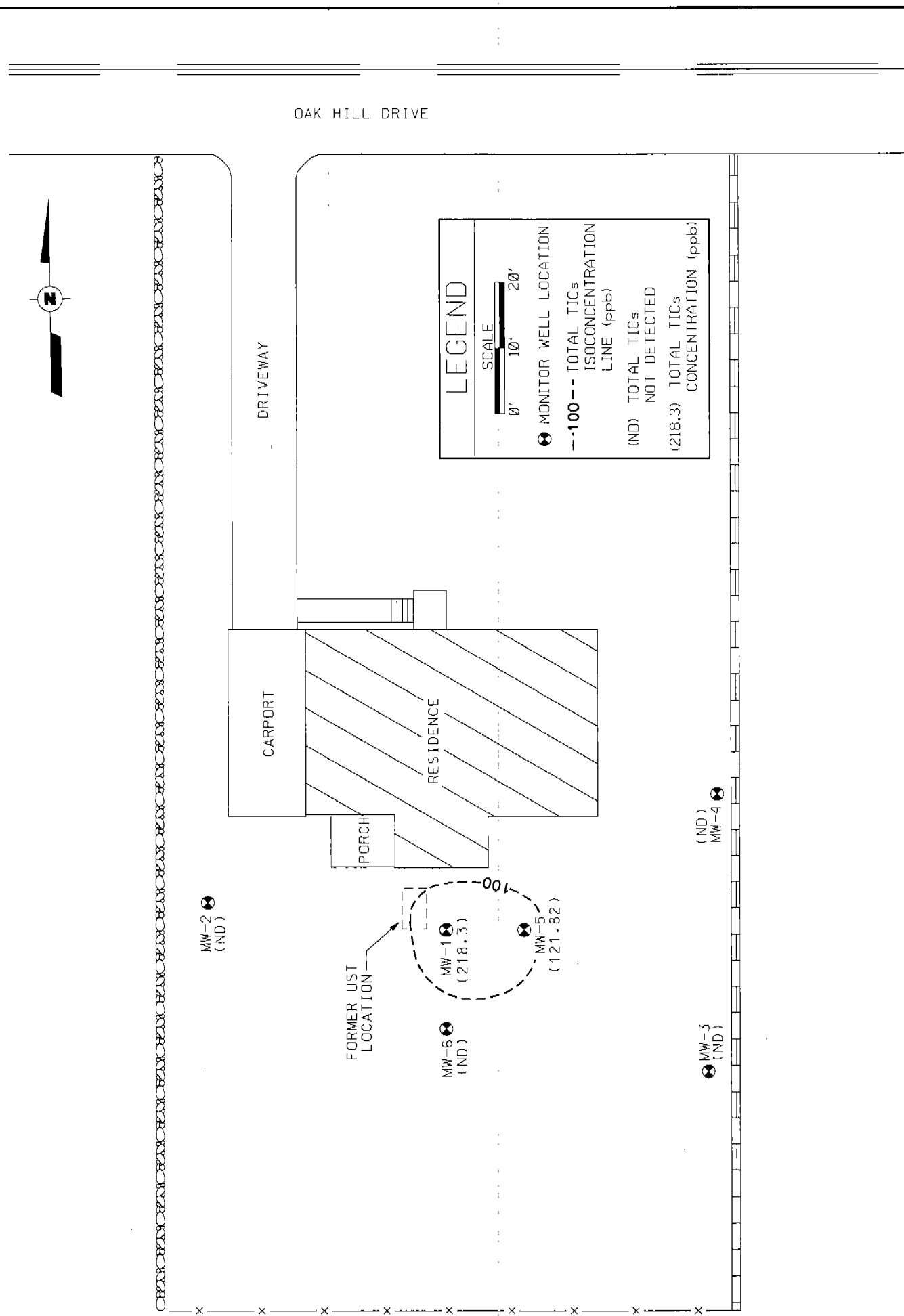
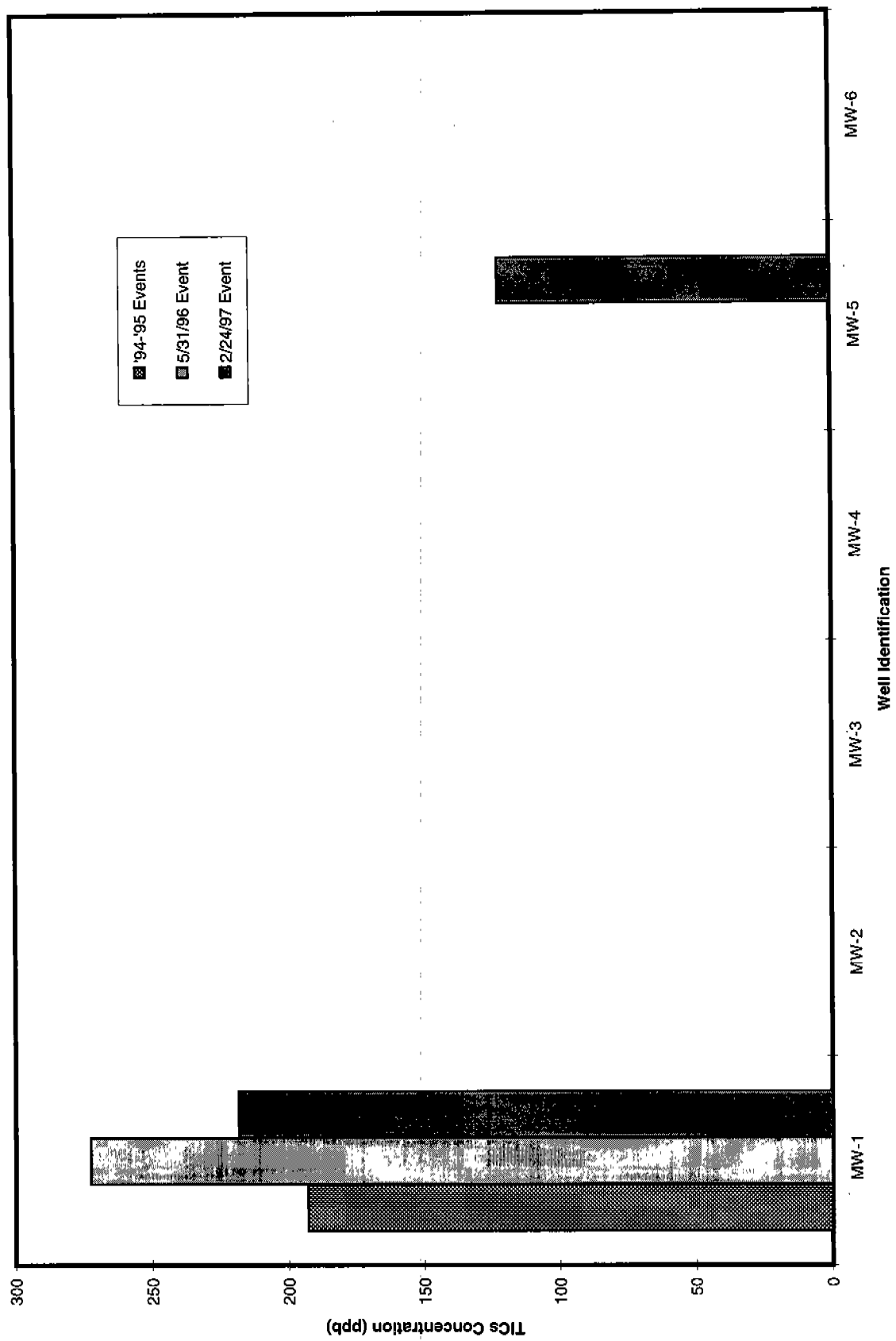


FIGURE 6

SCALE: 1"=20' DATE: 3/13/97 DWN.BY: KBM DWG.# L97-131C	TITLE: TOTAL TICs ISOCONCENTRATION MAP	PROJECT: PRE-CAP MONITORING 2205 OAK HILL DRIVE GREENSBORO, N.C.	CLIENT: MELVIN YARBOROUGH GREENSBORO, NC	<div data-bbox="1453 361 1559 489"> </div> LEGACY ENVIRONMENTAL SERVICES, INC. GREENSBORO, NORTH CAROLINA
-----------------------------------------------------------------	----------------------------------------------	---------------------------------------------------------------------------	------------------------------------------------	--------------------------------------------------------------------------------------------------------------------

FIGURE 7: Total TICs Concentration vs. Time



# TABLES



**TABLE 1**  
**Monitoring Well Information and Groundwater Elevations**

2205 Oak Hill Drive  
Guilford County, Greensboro, North Carolina

Well Number	Top of Casing Elevation	Top of Screen Elevation	Bottom of Screen Elevation	Depth to Water	Groundwater Elevation
MW-1	98.64	84.64	64.64	12.00	86.64
MW-2	100.00	86.00	66.00	11.24	88.76
MW-3	94.92	80.92	60.92	11.70	83.22
MW-4	95.00	71.00	61.00	10.71	84.29
MW-5	97.69	80.69	60.69	12.27	85.42
MW-6	98.50	88.50	73.50	12.13	86.37

All measurements taken in feet on 2/24/97 and based on an arbitrary benchmark of 100.00 feet at MW-2.

X97-119A

TABLE 2

## Summary of Groundwater Laboratory Analytical Results

2205 Oak Hill Drive  
Greensboro, Guilford County, North Carolina

CONSTITUENT	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	2L Standard
Date	2/24/97	2/24/97	2/24/97	2/24/97	2/24/97	2/24/97	
Benzene	BDL	BDL	BDL	BDL	BDL	BDL	1
Toluene	BDL	BDL	BDL	BDL	BDL	BDL	1,000
Ethylbenzene	4	BDL	BDL	BDL	1	BDL	29
Xylenes (total)	24	BDL	BDL	BDL	30	BDL	530
BTEX (total)	28	BDL	BDL	BDL	31	BDL	NSE
1,2 Dichlorobenzene	10	BDL	BDL	BDL	4	BDL	NSE
1,3 Dichlorobenzene	4	BDL	BDL	BDL	3	BDL	NSE
1,4 Dichlorobenzene	12	BDL	BDL	BDL	19	BDL	NSE
2-Ethylhexyl Phthalate	BDL	BDL	BDL	BDL	24.1	BDL	3
Di-n-Octylphthalate	BDL	BDL	BDL	BDL	10.7	BDL	140
Naphthalene	13.4	BDL	BDL	BDL	13.4	BDL	21
TICs (total)	218.3	BDL	BDL	BDL	121.82	BDL	NSE
Lead	1	2	1	BDL	BDL	2	15

All results reported in micrograms per liter (ug/l)

BDL = Below Detection Limits

TICs = Total Tentatively Identified Compounds

NSE = No Standard Established

**TABLE 3**  
**Time Based Laboratory Analytical Results - Total TICs**

2205 Oak Hill Drive  
Greensboro, North Carolina

Date of Sampling	Total TICs Concentration					
	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6
3/18/94-2/1/95	193	0	0	0	0	N/A
5/31/96	272.5	0	0	0	0	0
2/24/97	218.3	0	0	0	121.82	0

All results reported in micrograms per liter (ug/l)  
TICs = Tentatively Identified Compounds  
N/A = Data not available for this sampling event

**ATTACHMENT A**  
**LABORATORY ANALYTICAL RESULTS**

SINCE



1881

**FROEHLING & ROBERTSON, INC.**  
GEOTECHNICAL • ENVIRONMENTAL • MATERIALS  
ENGINEERS • LABORATORIES  
"OVER ONE HUNDRED YEARS OF SERVICE"

**CERTIFICATE OF ANALYSIS**

March 3, 1997

Page 1 of 7

LAB #: 9702139  
CLIENT: Legacy Environmental Services, Inc.  
P.O. Box 4560  
Greensboro, NC 27404-4560  
Attn: Christine Simons

PROJECT: Yarboro Property  
PROJECT #: P-342 N

SAMPLES COLLECTED BY: C. Simons  
LAB RECEIPT: 02/25/97, 0935

<u>PARAMETER</u>	<u>ANALYSIS DATE/TIME</u>	<u>METHOD</u>	<u>ANALYST</u>
Purgeable Aromatics	02/27/97, 0928	EPA 602	DP
Semivolatile Extraction BN	02/25/97, 1410	EPA 625 BN	DG
Semivolatile Organic Compounds	02/26/97, 1527	EPA 625 BN	EVY
Library Search	02/26/97, 1527		EVY
Lead	02/27/97, 1430	SM18/3113 B	RHS
Digestion-Groundwater	02/26/97, 0915	SM18/3030 C	TS

Results appear on the following pages.

*Audrey N. Brubeck / gae*  
**Audrey N. Brubeck**  
Laboratory Manager

AB/psg

HEADQUARTERS: 3015 DUMBARTON ROAD • BOX 27524 • RICHMOND, VA 23261-7524  
TELEPHONE (804) 264-2701 • FAX (804) 264-1202

BRANCHES: ASHEVILLE, NC • BALTIMORE, MD • CHARLOTTE, NC • CHESAPEAKE, VA  
CROZET, VA • FAYETTEVILLE, NC • FREDERICKSBURG, VA • GREENVILLE, SC  
RALEIGH, NC • ROANOKE, VA • STERLING, VA • WINSTON-SALEM, NC



**RESULTS:**

<b>F&amp;R #:</b>	<b>9702139-01</b>	<b>9702139-02</b>	<b>9702139-03</b>
<b>SAMPLE ID:</b>	<b>MW #1</b>	<b>MW #2</b>	<b>MW #3</b>
<b>DATE/TIME:</b>	<b>02/24/97, 1200</b>	<b>02/24/97, 1045</b>	<b>02/24/97, 1100</b>
<b>TYPE:</b>	<b>Water/Grab</b>	<b>Water/Grab</b>	<b>Water/Grab</b>

**Det'n Limit:**

**Semivolatile Organic Compounds (µg/L)**

Acenaphthene	BDL	BDL	BDL	10
Acenaphthylene	BDL	BDL	BDL	10
Anthracene	BDL	BDL	BDL	10
Benzidine	BDL	BDL	BDL	10
Benzo[a]anthracene	BDL	BDL	BDL	10
Benzo[a]pyrene	BDL	BDL	BDL	10
Benzo[b]fluoranthene	BDL	BDL	BDL	10
Benzo[g,h,i]perylene	BDL	BDL	BDL	10
Benzo[k]fluoranthene	BDL	BDL	BDL	10
bis(2-Chloroethoxy)methane	BDL	BDL	BDL	10
bis(2-Chloroethyl)ether	BDL	BDL	BDL	10
bis(2-chloroisopropyl)ether	BDL	BDL	BDL	10
bis(2-Ethylhexyl)phthalate	BDL	BDL	BDL	10
4-Bromophenyl-phenylether	BDL	BDL	BDL	10
Butylbenzylphthalate	BDL	BDL	BDL	10
2-Chloronaphthalene	BDL	BDL	BDL	10
4-Chlorophenyl-phenylether	BDL	BDL	BDL	10
Chrysene	BDL	BDL	BDL	10
Dibenz[a,h]anthracene	BDL	BDL	BDL	10
1,2-Dichlorobenzene	BDL	BDL	BDL	10
1,3-Dichlorobenzene	BDL	BDL	BDL	10
1,4-Dichlorobenzene	BDL	BDL	BDL	10
3,3'-Dichlorobenzidine	BDL	BDL	BDL	10
Diethylphthalate	BDL	BDL	BDL	10
Dimethylphthalate	BDL	BDL	BDL	10
Di-n-butylphthalate	BDL	BDL	BDL	10
2,4-Dinitrotoluene	BDL	BDL	BDL	10
2,6-Dinitrotoluene	BDL	BDL	BDL	10
Di-n-octylphthalate	BDL	BDL	BDL	10
Fluoranthene	BDL	BDL	BDL	10
Fluorene	BDL	BDL	BDL	10
Hexachlorobenzene	BDL	BDL	BDL	10
Hexachlorobutadiene	BDL	BDL	BDL	10

BDL = Below Detection Limit

µg/L = microgram per Liter

**RESULTS:**

F&R #:	9702139-01	9702139-02	9702139-03
SAMPLE ID:	MW #1	MW #2	MW #3
DATE/TIME:	02/24/97, 1200	02/24/97, 1045	02/24/97, 1100
TYPE:	Water/Grab	Water/Grab	Water/Grab

**Det'n Limit:****Semivolatile Organic Compounds (µg/L) (cont.)**

Hexachlorocyclopentadiene	BDL	BDL	BDL	10
Hexachloroethane	BDL	BDL	BDL	10
Indeno[1,2,3-cd]pyrene	BDL	BDL	BDL	10
Isophorone	BDL	BDL	BDL	10
Naphthalene	13.4	BDL	BDL	10
Nitrobenzene	BDL	BDL	BDL	10
n-Nitroso-di-n-propylamine	BDL	BDL	BDL	10
n-Nitrosodiphenylamine	BDL	BDL	BDL	10
Phenanthrene	BDL	BDL	BDL	10
Pyrene	BDL	BDL	BDL	10
1,2,4-Trichlorobenzene	BDL	BDL	BDL	10
Lead (mg/L)	0.001	0.002	0.001	0.001

BDL = Below Detection Limit

µg/L = microgram per Liter

mg/L = milligram per Liter



## RESULTS:

F&R #:	9702139-04	9702139-05	9702139-06
SAMPLE ID:	MW #4	MW #5	MW #6
DATE/TIME:	02/24/97, 1050	02/24/97, 1130	02/24/97, 1115
TYPE:	Water/Grab	Water/Grab	Water/Grab

Det'n Limit:

## Semivolatile Organic Compounds (µg/L)

	9702139-04	9702139-05	9702139-06	Det'n Limit:
Acenaphthene	BDL	BDL	BDL	10
Acenaphthylene	BDL	BDL	BDL	10
Anthracene	BDL	BDL	BDL	10
Benzidine	BDL	BDL	BDL	10
Benzo[a]anthracene	BDL	BDL	BDL	10
Benzo[a]pyrene	BDL	BDL	BDL	10
Benzo[b]fluoranthene	BDL	BDL	BDL	10
Benzo[g,h,i]perylene	BDL	BDL	BDL	10
Benzo[k]fluoranthene	BDL	BDL	BDL	10
bis(2-Chloroethoxy)methane	BDL	BDL	BDL	10
bis(2-Chloroethyl)ether	BDL	BDL	BDL	10
bis(2-chloroisopropyl)ether	BDL	BDL	BDL	10
bis(2-Ethylhexyl)phthalate	BDL	24.1	BDL	10
4-Bromophenyl-phenylether	BDL	BDL	BDL	10
Butylbenzylphthalate	BDL	BDL	BDL	10
2-Chloronaphthalene	BDL	BDL	BDL	10
4-Chlorophenyl-phenylether	BDL	BDL	BDL	10
Chrysene	BDL	BDL	BDL	10
Dibenz[a,h]anthracene	BDL	BDL	BDL	10
1,2-Dichlorobenzene	BDL	BDL	BDL	10
1,3-Dichlorobenzene	BDL	BDL	BDL	10
1,4-Dichlorobenzene	BDL	BDL	BDL	10
3,3'-Dichlorobenzidine	BDL	BDL	BDL	10
Diethylphthalate	BDL	BDL	BDL	10
Dimethylphthalate	BDL	BDL	BDL	10
Di-n-butylphthalate	BDL	BDL	BDL	10
2,4-Dinitrotoluene	BDL	BDL	BDL	10
2,6-Dinitrotoluene	BDL	BDL	BDL	10
Di-n-octylphthalate	BDL	10.7	BDL	10
Fluoranthene	BDL	BDL	BDL	10
Fluorene	BDL	BDL	BDL	10
Hexachlorobenzene	BDL	BDL	BDL	10
Hexachlorobutadiene	BDL	BDL	BDL	10

BDL = Below Detection Limit

µg/L = microgram per Liter





## RESULTS:

F&R #:	9702139-04	9702139-05	9702139-06
SAMPLE ID:	MW #4	MW #5	MW #6
DATE/TIME:	02/24/97, 1050	02/24/97, 1130	02/24/97, 1115
TYPE:	Water/Grab	Water/Grab	Water/Grab

## Det'n Limit:

## Semivolatile Organic Compounds (µg/L) (cont.)

Hexachlorocyclopentadiene	BDL	BDL	BDL	10
Hexachloroethane	BDL	BDL	BDL	10
Indeno[1,2,3-cd]pyrene	BDL	BDL	BDL	10
Isophorone	BDL	BDL	BDL	10
Naphthalene	BDL	13.4	BDL	10
Nitrobenzene	BDL	BDL	BDL	10
n-Nitroso-di-n-propylamine	BDL	BDL	BDL	10
n-Nitrosodiphenylamine	BDL	BDL	BDL	10
Phenanthrene	BDL	BDL	BDL	10
Pyrene	BDL	BDL	BDL	10
1,2,4-Trichlorobenzene	BDL	BDL	BDL	10
Lead (mg/L)	BDL	BDL	0.002	0.001

BDL = Below Detection Limit

µg/L = microgram per Liter

mg/L = milligram per Liter

**RESULTS:**

F&R #:	9702139-01	9702139-02	9702139-03
SAMPLE ID:	MW #1	MW #2	MW #3
DATE/TIME:	02/24/97, 1200	02/24/97, 1045	02/24/97, 1100
TYPE:	Water/Grab	Water/Grab	Water/Grab

Det'n Limit:

**Purgeable Aromatics (µg/L)**

	9702139-01	9702139-02	9702139-03	Det'n Limit:
Benzene	BDL	BDL	BDL	1
Toluene	BDL	BDL	BDL	1
Ethylbenzene	4	BDL	BDL	1
Total Xylenes	24	BDL	BDL	3
Chlorobenzene	BDL	BDL	BDL	1
1,2-DCB	10	BDL	BDL	1
1,3-DCB	4	BDL	BDL	1
1,4-DCB	12	BDL	BDL	1

F&R #:	9702139-04	9702139-05	9702139-06
SAMPLE ID:	MW #4	MW #5	MW #6
DATE/TIME:	02/24/97, 1050	02/24/97, 1130	02/24/97, 1115
TYPE:	Water/Grab	Water/Grab	Water/Grab

Det'n Limit:

**Purgeable Aromatics (µg/L)**

	9702139-04	9702139-05	9702139-06	Det'n Limit:
Benzene	BDL	BDL	BDL	1
Toluene	BDL	BDL	BDL	1
Ethylbenzene	BDL	1	BDL	1
Total Xylenes	BDL	30	BDL	3
Chlorobenzene	BDL	BDL	BDL	1
1,2-DCB	BDL	4	BDL	1
1,3-DCB	BDL	3	BDL	1
1,4-DCB	BDL	19	BDL	1

µg/L = microgram per Liter

BDL = Below Detection Limit



**Library Search**  
**Tentatively Identified Compounds**

	<b>Retention Time</b>	<b>Estimated Conc. (µg/L)</b>	<b>% Match</b>
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**F&R ID: 9702139-01****Compound**

Trimethyl-benzene	6.54	20.4	95
Trimethylbenzene	7.03	17.8	95
Dihydro-methylindene	9.07	21.5	94
Tridecane	11.15	28.0	95
Dodecane	12.49	34.8	91
Dimethyl-naphthalene	12.88	14.3	97
Pentadecane	13.75	29.4	94
Hexadecane	14.94	33.3	93
Heptadecane	16.07	18.8	98

**F&R ID: 9702139-05****Compound**

Dimethyl-benzene	4.83	11.2	95
Trimethyl-benzene	6.54	14.7	95
Trimethyl-benzene	7.03	17.1	97
Dihydro-methylindene	9.07	15.5	97
Tetrahydro-naphthalene	9.25	9.82	94
Methyl-naphthalene	11.44	17.9	97
Dimethyl-naphthalene	12.89	10.3	97
Methyl-naphthalene	11.21	25.3	95

No non-target compounds were detected in the library search for samples 9702139-02, 9702139-03, 9702139-04 and 9702139-06.

Rec'd on ice